Applicant: William A. Curby et al. Attorney's Docket No.: 08688-040002/(UML 98-01)

Serial No.: 10/066,253

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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-14. (canceled).

15. (currently amended) A system for detecting the presence of an energetic material in a sample in which the presence of the energetic material is unknown, the system comprising:

a thermal measuring apparatus which during operation heats the sample and measures heat flow between the sample and its surrounding environment; and

an analyzer coupled to the thermal measuring apparatus <u>and comprising a processor and software</u>, wherein the software causes the processor to analyze which during operation analyzes the heat flow measured by the thermal measuring apparatus and <u>to determines determine</u> the presence or absence of a strong exothermal peak, wherein the presence of a strong exothermal peak indicates the presence of the energetic material in the sample and the absence of a strong exothermal peak indicates the absence of any energetic material in the sample.

- 16. (original) The system of claim 15, wherein the thermal measuring apparatus is a differential scanning calorimeter.
- 17. (original) The system of claim 15, further comprising a collection apparatus that collects and concentrates the sample.
- 18. (original) The system of claim 17, wherein the collection apparatus collects and concentrates the sample by electrostatic precipitation.
- 19. (original) The system of claim 17, wherein the collection apparatus collects and concentrates the sample by solvent extraction.

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20. (original) The system of claim 15, wherein the thermal measuring apparatus heats the sample in a substantially anaerobic environment.

- 21. (original) The system of claim 15, wherein the thermal measuring apparatus heats the sample to a temperature no greater than about 500°C.
- 22. (original) The system of claim 15, wherein the thermal measuring apparatus heats the sample to a temperature no greater than about 350°C.

23 - 29. (canceled)

30 (new) The system of claim 15, further comprising an alarm or display activated by the analyzer when a strong exothermal peak is identified to signal the presence of an energetic material.